

WHAT IS CLAIMED IS:

1. In a network, a method of using a messaging component and a single network communication channel for sending and receiving messages by a plurality of threads of execution executing on a network computer, the method comprising:

establishing, on the network computer, a network communication channel for use by the messaging component, the network connection having a network address;

supplying registration information associated with each of the plurality of execution threads executing on the network computer;

receiving a message at the network computer by the messaging component, the message containing the network address of the messaging component, the message further containing a payload portion for identifying one or more of the execution threads;

the messaging component comparing the contents of the payload portion with the registration information for each of the plurality of execution threads; and

forwarding the received message to the one or more execution threads based on the results of the comparison.

2. A method according to Claim 1, further comprising the step of:

transmitting another message originating from any of the plurality of execution threads executing on the network computer via the messaging component.

3. A method according to Claim 2, wherein the other message includes a payload portion for identifying one or more of the execution threads executing on another network computer.

4. A method according to Claim 1, wherein the network is a digital cable network and the network computer is a set-top box.

5. A method according to Claim 1, wherein the network is a digital cable network and the network computer is a cable head end.

6. A method according to Claim 1, wherein the registration information comprises an identifier and a message interest for each of the plurality of execution threads.

7. A method according to Claim 6, wherein the message interest comprises a message type either alone or in combination with a message ticket.

8. A method according to Claim 7, wherein the message ticket comprises a unique identifier for use in identifying a specific execution thread.

9. A method according to Claim 1, wherein another network computer has a messaging component, and wherein any of a plurality of execution threads that execute on the other network computer communicate via the other messaging component.

10. A method according to Claim 1, wherein the network address of the messaging component comprises a socket identifier.

11. A method according to Claim 1, wherein the network address of the messaging component comprises a MAC address.

12. A method according to Claim 1, wherein the network address of the messaging component comprises a Network Access Service Point (NSAP) address.

5 13. A method of communicating between a set-top box and a cable head end via a digital cable network, the method comprising:
establishing a common network communication channel on one or the other or both the set-top box and the cable head end, wherein the common network communication channel is shared by a plurality of
10 applications, or execution subprocesses thereof, to send and receive messages via the digital network.

14. In a network computer that executes a messaging component and a plurality of execution threads, a method of determining a
15 manner of transferring data to a recipient network computer, the messaging component having a network address and configured to receive and send network messages for the plurality of execution threads, the method comprising:

receiving a request from one of the execution threads to transfer
20 data to the recipient network computer, the request including at least one requirement for carrying out the request;

based at least in part on the received requirement, determining a proposed manner of transfer;

transmitting, using the messaging component, a start message
25 to the recipient network computer, the start message including the proposed manner of transfer;

in response to a rejection of the proposed manner of transfer, determining whether an alternative manner of transfer is available; and

30 responding, using the messaging component, to the rejection with an alternative manner of transfer where one is available.

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19. A method according to Claim 18, wherein the data is transferred via shared memory for access to the at least one recipient thread.

20. A method according to Claim 14, wherein the proposed manner of transfer indicates a "by-reference" delivery mode, the method further comprising:

accessing a network server referenced in the start message, wherein the determining step determines whether accessing the network server is successful.

21. A method according to Claim 14, wherein the proposed manner of transfer indicates a "direct" delivery mode using a specified network protocol, the step of determining, by the recipient network computer, whether the proposed manner of transfer is acceptable further comprising:

determining whether the specified network protocol is supported on the recipient network computer.

22. A method according to Claim 21, wherein the step of transmitting a response message further comprising the step of:

transmitting an indication of a port to which the data transfer is to be directed as part of a payload portion of the response message.

23. An apparatus for determining a manner of transferring data, said apparatus comprising means for performing the functions specified in any of Claims 14 to 22.

24. An apparatus comprising:
a program memory for storing process steps executable to perform a method according to any of Claims 14 to 22; and
a processor for executing the process steps stored in said program memory.

25. Computer-executable process steps stored on a computer readable medium, said computer-executable process steps for determining a manner of transferring data, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 14 to 22.

26. An apparatus for using a messaging component by a plurality of messaging threads, said apparatus comprising means for performing the functions specified in any of Claims 1 to 10.

27. An apparatus comprising:
a program memory for storing process steps executable to perform a method according to any of Claims 1 to 10; and
a processor for executing the process steps stored in said program memory.

28. Computer-executable process steps stored on a computer readable medium, said computer-executable process steps for using a messaging component by a plurality of threads of execution, said computer-executable process steps comprising process steps executable to perform a method according to any of Claims 1 to 10.